

REMARKS

In this paper, claims 1, 4, 31-34 and 36 are currently amended. After entry of the above amendment, claims 1-37 are pending.

Claim 27 was rejected under 35 U.S.C. §112 as being indefinite. This basis for rejection is respectfully traversed. Antecedent basis for the phrase “the cumulative information” appears in claim 18, line 3.

Claims 32, 33 and 36 were rejected under 35 U.S.C. §112 as being indefinite. Claims 1, 4, 31-34 and 36 have been amended to clarify that the information input and the information output are components, and claims 32, 33 and 36 have been amended to clarify that physical detachment is intended. Since claims 32, 33 and 36 were not rejected over the prior art, it is assumed that these claims now are allowable.

Claims 1-6, 11-16, 18-20, 24, 30-31, 34-35 and 37 were rejected under 35 U.S.C. §103(a) as being anticipated by Downs (US 5,629,668). This basis for rejection is respectfully traversed.

As noted previously, Downs discloses a conventional data display unit for a bicycle wherein a computer (14) calculates and displays information on a display (16). The computer (14) is housed together with the display. The various figures are schematics and do not represent the actual placement of components. Downs neither discloses nor suggests a display component housed within a case member and a computing component disposed outside the case member.

The office action states that claiming a display component housed within a case member, and a computing component disposed outside of the case member, is not an inventive concept because they are merely components of a bicycle displaying information from computing components. However, all apparatus inventions are “components” that do something, so that alone is not a proper basis for rejecting claims.

The office action further states that there are many motivations for separating the computing components from the display, one of which is to make the display as small as possible. However,

there must be some logical reason apparent from positive, concrete *evidence* of record which justifies a suggestion to modify a prior art structure. See *In re Regel*, 188 USPQ 136, 139 (CCPA 1975). The motivation to combine must be clear and particular, and it must be supported by actual evidence. *Teleflex, Inc. v. Ficosa North America Corp.*, 63 USPQ.2d 1374, 1387 (Fed.Cir. 2002). Also, a rejection based on Section 103 must rest on a factual basis, with the facts being interpreted without hindsight reconstruction of the invention from the prior art. In making this evaluation, the examiner has the initial duty of supplying the factual basis for the rejection he advances. The examiner may not resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in the factual basis. *Ex parte Haymond*, 41 USPQ2d 1217 (BdPatApp&Int 1996). In this case, the size of the display is dictated by the display screen technology, and the display must be made large enough for the cyclist to read the information displayed while riding. The size of the computing components is negligible, and it makes no sense to arbitrarily reduce the size of the display, thereby making the information more difficult to read.

The office action then states that placing the computing components internal or external to the display device is a matter of design choice. However, it is well settled that a conclusory assertion of “design choice” is not a proper basis to reject claims for obviousness. *In re Dembiczak*, 50 USPQ2d 1614 (Fed.Cir. 1999). This is especially true when the issue is whether to place something internal or external to another thing. *In re Chu*, 36 USPQ2d 1089 (Fed.Cir. 1995) (no teaching or suggestion in the prior art that would lead one of ordinary skill to modify the structure of prior art reference to place an SCR catalyst within a bag retainer, rather than between two filter bags as disclosed in that reference). Applied to the present case, there must be a suggestion to dispose the computing component outside of the case member. If the goal is to make the display smaller, then it must be shown that one of ordinary skill in the art would want to make the display smaller, without resorting to speculation or unfounded assumptions. *Haymond, supra*.

The office action then states that placing the computing component external to the display device does not provide any different utility. However, Section 103 does not require a “different utility,” nor is there any case law that sets forth such a requirement, or even defines what the term “different utility” means.

The subject matter recited in claim 1 allows different placement of the computing component relative to the display component. As noted at the bottom of paragraph [0020] in the specification, the computing component may be placed on the bottom bracket of frame body (2), fairly close to alternating current generator (19), thereby allowing highly efficient communication of power between the two. Also, as indicated at paragraph [0048], information calculated by the computing component (such as the total distance OD) can be properly displayed even when third control unit 32 is replaced. Furthermore, when a plurality of bicycles are owned, information for each of the several bikes can be properly displayed with just one third control unit 32. The information also can be properly displayed when third control unit 32 is mounted, regardless of whether or not it was temporarily detached.

The office action refers to applicant's previous assertion that the display component (16) in Downs does not calculate anything, and that all calculations are performed by computer (14), which is not part of display component (16). The office action indicates a belief that such an assertion constitutes some kind of admission that supports an obviousness rejection. That is incorrect. The fact that computer (14) is not part of display component (16) does not equate with computer (14) being disposed *outside of a case member* that houses display component (16). There simply is no disclosure or suggestion in Downs to dispose a computing component outside of a case member that houses the display.

As for claim 2, Downs neither discloses nor suggests a cumulative information memory disposed outside of the case member.

As for claim 3, Downs neither discloses nor suggests a display component structured to be detachably attached to the bicycle independently of the computing component.

As for claims 4, 6 and 34, Downs discloses the use of a battery (26) to power computer (14), but Downs neither discloses nor suggests power being communicated from the computing component to the display component through an information output component of the computing component and an information input component of a display component.

As for claim 5, Downs discloses a sensor assembly (12) that senses wheel and/or pedal rotation and transmits pulse signals from the sensor to computer (14). However, Downs neither discloses nor suggests power and information calculated by the computing component being communicated *from the computing component to the display component* through a single communication line.

As for claim 12, Downs neither discloses nor suggests the display component comprising a cumulative information memory housed within the case member, given that the computing component is disposed outside of the case member.

As for claim 14, all computing in the Downs device is performed by microprocessor (24). Downs neither discloses nor suggests a display component that calculates additional cumulative information using reference cumulative information and subsequent cumulative information communicated from a computing component. There is no evidence that control device (28) makes any calculations of information displayed on display (16).

As for claim 18, as noted in the previous response, that claim recites a display component that calculates first additional cumulative information from cumulative information received from a computing component. The display component (16) in Downs does not calculate anything. All calculations are performed by computer (14), which is not part of display component (16). Furthermore, insofar as microprocessor (24) is interpreted to be a receiver, then microprocessor (24) does not receive cumulative information produced by a computing component.

As for claims 30 and 31, those claims depend from claim 29, which was not addressed in this ground for rejection. In any event, Downs neither discloses nor suggests a second computing component as recited in claim 29, wherein such a second computing component is disposed within a case member as recited in claim 30, or wherein a second computing component receives data from the previously recited computing component and calculates the information displayed on the display component from the data received from the previously recited computing component as recited in claim 31.

As for claim 35, it is *not* inherent that mounting brackets are positioned on a handlebar. Mounting brackets may be structured to be positioned on many structural members of the bicycle.

As for claim 37, Downs neither discloses nor suggests the computing component being structured for attachment to the bicycle spaced apart from the case member.

Claim 9 was rejected under 35 U.S.C. §103(a) as being unpatentable over Downs in view of Kitamura (US 6,418,041). This basis for rejection is respectfully traversed for the same reasons noted above.

Claim 17 was rejected under 35 U.S.C. §103(a) as being unpatentable over Downs in view of Quintilian (US 4,319,129). This basis for rejection is respectfully traversed for the same reasons noted above.

Claims 13, 20-23 and 25-29 were rejected under 35 U.S.C. §103(a) as being unpatentable over Downs. This basis for rejection is respectfully traversed for the same reasons noted above.

Furthermore, the office action states that it would be obvious to add an extra computing component with a display component “for benefit of saving required spaces or to increase computing capabilities.” However, there is no evidence that adding a further processor to the Downs device would save space in any manner, or that there is any reason to increased computing capabilities by adding a processor to the display as opposed to merely adding computing power to the existing microprocessor (24). The only suggestion to do so comes from the applicant’s specification.

As for claims 21 and 26, it is well settled that *how* an electronic component performs a particular function is a distinguishing feature. Indeed, how an electronic component performs a particular function is the cornerstone of patentability for that class of invention as well as inventions directed to programmed devices.

As for claims 23 and 29, the office action relies on anecdotal, hearsay evidence about the structure and operation of a Lexus RX300 to support a rejection of those claims. It is not the responsibility of the applicant or the undersigned to purchase such a fine vehicle or otherwise obtain the information necessary to determine the structure and operation of the vehicle in order to

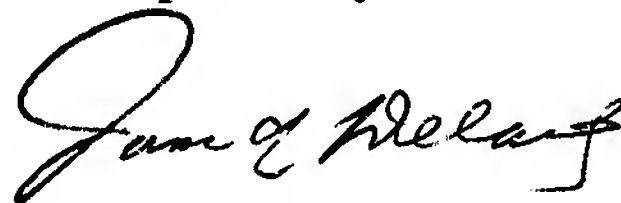


determine the propriety for the examiner's position. It is the examiner's responsibility to provide actual evidence to support the rejection so that the applicant can verify the assertions made without undue burden.

As for claims 27-28, Downs neither discloses nor suggests the advantageous features claimed. The only suggestion for doing what is claimed comes from the applicant's disclosure.

Accordingly, it is believed that the rejections under 35 U.S.C. §103 have been overcome by the foregoing amendment and remarks, and it is submitted that the claims are in condition for allowance. Reconsideration of this application as amended is respectfully requested. Allowance of all claims is earnestly solicited.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "James A. Deland".

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